



PRAGMATISM OR IDEOLOGY? BUSINESS SECTORS AND CAMPAIGN FINANCING IN 2014

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Abstract: This article studies the behavior of business sectors as campaign donors in the 2014 Brazilian elections for president and federal deputy. By applying social network analysis and multiple linear regression to the data on electoral financing divulged by the Brazilian Superior Electoral Court, this article shows that important business sectors, the main presidential candidacies, and the largest political parties formed a highly interconnected political-economic elite, whose internal relationships are based in pragmatic rather than ideological criteria.

Keywords: Electoral campaign finance; Business sectors; 2014 Brazilian elections.

1. Introduction

A decision by the Federal Supreme Court (STF), made in September 2015, banned electoral financing by corporations in Brazil. Funding by the private sector was prominent for the country's political campaigns for over 21 years, extended from 1994 - the first election of the recent democratic period in which corporation financing was admitted by the national legal system - until the publication of the judgment of the Supreme Court. Throughout this period, six national elections and five municipal elections were financed mainly by companies.

Political science began to focus on data regarding electoral contributions from Brazilian corporations based on the work of Samuels (2001a; 2001b; 2001c; 2001d; 2002), who focused on the 1994 and 1998 elections. However, the literature boom on the subject occurred when the electoral justice began compiling the data on campaign donations, making it available on the internet. The Electoral Data Repository of the Superior Electoral Court (TSE) currently provides official information on campaign financing for all elections held in the country since 2002⁵.

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A part of the literature has been dedicated to the study of corporate donations, exploring their determining factors or addressing their effects on candidate performance, but always taking the general set of corporate contributions, without specifying Corporate Registrations (CNPJs) (SANTOS, 2009; CERVI, 2010; ARAÚJO, SILOTTO and CUNHA, 2015; HOROCHOVSKI *et al.*, 2015; MANCUSO and SPECK, 2015a; MANCUSO and SPECK, 2015b; MANCUSO *et al.* 2016; SPECK, 2016). Therefore, this first segment of national academic production overviewed the macrodynamics of the phenomenon.

Another part of the literature investigated the *quid pro quo* involved in electoral financing made by specific corporations, seeking to understand whether these donations resulted in specific benefits in terms of (i) general economic performance (BANDEIRA de MELLO and MARCON, 2005), (ii) access to credit from public banks (CLAESSENS, FEIJEN, and LAEVEN, 2008; LAZZARINI *et al.*, 2011; ROCHA, 2011; LOPES, 2016), and (iii) access to government contracts (ARAÚJO, 2012; BOAS, HIDALGO, and RICHARDSON, 2014). This second segment of the literature overviewed the microdynamics of corporate electoral contributions.

Between these predominant and complementary poles of the literature, there was also a third segment, to which the present work is affiliated, and which viewed at campaign donations made by different economic sectors of the corporate community, thus focusing on *meso* reach. This segment includes the work of Mancuso, Horochovski, and Camargo (2016), who scanned the flow of electoral funding from the various sectors of the Brazilian economy destined for the 2014 presidential campaigns. The works of Araújo (2008) and Santos (2016) belong to the same strand of literature but emphasize the effect of sectoral contributions on political decisions and behaviors. Araújo (2008) found no correlation between electoral donations and commercial protection to specific Brazilian corporate community branches via deviations from the Mercosur Common External Tariff (TEC). Santos (2016), in turn, verified an influx of sectorial financing for deputies (i) who belong to permanent commissions of the Chamber that address matters relevant to campaign donors, (ii) who report provisional measures (PMs) of interest to the financiers, and (iii) who propose amendments to the PMs for the benefit of the contributors.

This paper's general objective is to analyze the behavior of different corporate segments as campaign funders in the 2014 elections. The questions proposed by the article are the following: which corporate sectors stood out as sources of electoral funding in that election? How did the distinct sectors distribute their resources among candidates and political parties? Which subset of sectors, candidates, and parties occupied more central positions in the electoral financing network in the 2014 campaign? Finally, what factor best explains the sector's donor behavior: pragmatism or ideology?

The article is divided into three parts in addition to this introduction to achieve this goal

and answer these questions. The first part explains the systematics of electoral financing in the 2014 campaign. The second contains the research methodology applied in this study. The third presents and discusses the results. The final considerations present the article's main conclusions and indicate possible developments of the investigation initiated here.

2. Electoral financing in the 2014 elections

Brazil has historically adopted a mixed model of political funding, combining private and public sources of funds. Its design remained virtually unchanged for two decades, between 1994 and 2014, and presided over the 2014 elections. It is, therefore, of such a design that we deal with here.

In 2014, the main private sources were legal entities, individuals, and the candidates themselves, in accordance with Laws No. 9,096/1995 and 9,504/1997 - Law on Political Parties and Law on Elections, respectively (BRASIL, 1995, 1997). Corporate donations were permitted up to two percent of their gross revenue reported to the Federal Revenue Office in the year before the election. On the other hand, individuals could donate up to ten percent of their gross income, declared to the Income Tax, also in the fiscal year preceding the election. The candidates could make donations up to the expenditure limit defined by their parties for campaigns for the positions for which they were running.

The public source of electoral funding was the Special Fund for Financial Assistance to Political Parties, known as the Party Fund (PF). The PF was distributed annually and regulated by Law No. 9,096/1997, composed (and still is) of Union budget allocations, fines, and pecuniary penalties, in the minimum amount of BRL 35 cents per voter, in values for August 1995, corrected by the IGP-DI/FGV and multiplied by the total electorate each year. The PF usually surpassed this value. The PF was shared as follows: five percent was divided equally between the parties with definitive registration, and 95 percent were divided in proportion to each party's performance in the last elections for Federal Deputy. The PF was not destined exclusively to finance campaigns since it was the source of funding for party maintenance. Only part of the PF was used in the elections.

In addition to these main sources, the sale of goods and services and donations over the internet also served as income to the funds. However, the sum of these modalities has always been much lower than one percent of the resources traded in the campaigns, which is why we have not detailed them.

In both decades in which this model prevailed, private origin funding, mainly corporate, predominated almost absolutely - in 2014, companies alone were responsible for more than 72 percent of all revenues declared by candidates, parties, and financial committees. However, the elections in question were the last with such dynamics since, in 2015, corporate donations were prohibited by the Federal Supreme Court (STF), resulting from the judgment of the Direct Action

of Unconstitutionality (ADI) n° 4.650, filed by Brazilian Bar Association (OAB)⁶.

An essential characteristic of the model that governed the 2014 elections was flexibility, not only in the limits of donation but also in the paths taken by the resources. Apart from individuals and corporations, who could only donate, the other actors who participated in the process - candidates, parties, and financial committees - could receive, donate, and/or transfer the funds received. Until that election, there was no way to identify these flows when the money received as a corporate donation by the party was passed on to a few candidates. In this sense, the main novelty that year was Resolution n° 23,406/2014, imposed by the Superior Electoral Court (TSE), by which account providers were obliged to identify the source of funds transferred. Thus if a corporation made a donation to a party directory and redirected it to a candidate, the candidate's accountability would have to inform that that corporation was the source of the party's resource. The purpose of this resolution was to fight hidden donations, that is, donations from a corporation to an agent, disguised by the mediation of another agent. This measure enabled research such as the one presented in this article, in which applications have all corporate donations identified, whether direct or indirect.

3. Methodology

This article focuses on the official electoral donations made by the different economic sectors in the 2014 elections. In other words, the work addresses exclusively the contributions formally declared by corporations to the Electoral Justice. Several resources that are very difficult to measure may have flowed from corporations to candidates, committees, and parties through unofficial channels, in the form of slush funds. The work has no way of covering such resources, given the veiled nature of illicit transfers. In any case, official corporate donations have reached billionaire figures, indicating the importance of addressing legal transfers, even if not containing the entire history of corporate electoral financing in the election under analysis.

The article specifically addresses corporate contributions for candidates and parties that have run for two national-level positions: President of the Republic and Federal Deputy. The first step of the research was to download the accountability of all candidacies for these positions that were accepted by the electoral justice from the TSE Electoral Data Repository. In the case of the dispute for the head of the national executive, we also included the rendering of accounts of the national finance committees for the President of the Republic, excluding transfers between the accounts of the candidacies and the committees, and vice versa, to avoid double counting the resources.

⁶ To supply the absence of corporate financing, even partially, Law n° 13,487/2017 established the Special Campaign Financing Fund (FEFC), known as the electoral fund. Also distributed according to the performance of the parties in the previous general election, the fund totaled BRL 1.7 billion for the 2018 elections, just over half of what corporations donated in 2014.

Second, we filtered all corporate donations, both direct - registered as legal entity resources - and indirect - registered as resources from political parties or candidates and committees, but with the original donors duly identified, as explained in the previous section. The corporate community allocated BRL 605,815,280.25 to the presidential election and BRL 780,038,292.83 to the Chamber of Deputies' election during the 2014 campaign.

Third, we aggregate direct and indirect corporate donations according to the donor section in the National Classification of Economic Activities (CNAE). In the case of the presidential election, the aggregation was made for each of the 11 candidacies. In the case of the election for Federal Deputy, the aggregation was made for each of the 32 parties that launched candidates for this position.

Fourth, we submitted the data obtained to two analysis techniques. First, the analysis of social networks, with the dual purpose of preparing graphs of the relations between economic sectors, candidates, and parties, as well as calculating a series of metrics regarding these relations. Second, to multiple linear regression to test hypotheses of factors potentially explaining the donor behavior of the main economic segments involved in the 2014 campaign for Federal Deputy.

4. Results

Network analysis

Most research on Brazil's political funding is based on static attributes of the actors participating in the process. Thus, variables such as gender, income, schooling, party, political capital, size and ideology of the party, and the financier's type and economic capacity, among others, are mobilized from different approaches, but with a predominance of descriptive statistical and inferential models. Such a strategy generated an accumulation of quality studies, which accurately described the phenomenon, constituting a specific field within Brazilian political science (MANCUSO, 2015).

The social network analysis methodology (SNA) contributes to research based on the actors' static attributes by introducing a relational perspective. This is because network statistics are generated not from the specific characteristics of the actors but the bonds or flows that they establish with other actors in a network of social relations, which allows identifying who is central and who is peripheral, that is, who concentrates and who is removed from power resources. In the case of electoral financing, the actors – resource donors and recipients - are the nodes, and the donations make up the edges, that is, the flows that connect the actors producing the bonds that make up a social network.

A series of papers that analyze political funding networks has been published in recent years (CERVI; HOROCHOVSKI *et al.*, 2015; HOROCHOVSKI *et al.*, 2016; JUNCKES *et al.*, 2014; SILVA *et al.*, 2017; JUNCKES *et al.*, 2019). This article follows this investigative line, focusing on how corporate sectors finance policy. As stated in the previous section, to

of SNA since it consists of the number of edges that depart from or reach a given node. The degree can be of entry or exit in directed graphs, in which the direction of the edge matters for the analyses, and correspond to the donations that entered the candidate or left the CNAE section, respectively.

Tables 1 and 2 show that the three candidatures that came to the forefront in the dispute - Dilma, Aécio, and Eduardo/Marina - are those with the highest degree of entry. The CNAE has 21 sections (identified by letters ranging from A to U), which correspond to the set of sectors that make up the Brazilian economy. The PT candidate received donations from 18 sectors, that is, from all economic sectors that donated some value to the presidential candidates' campaign, while the other two received donations from 15 sectors. The remaining candidates received from four sectors or less. Although this measure is very simple and does not express the values transacted, nor the weight of each sector in the applications, it shows that the main applications served as a pole of attraction for the contributions made by most donor sectors. Hence, the literature highlighted the importance of always considering a possible endogeneity in the study of electoral financing. If donations can favor the performance in the eligible candidates' ballot boxes, the candidates' expected performance (for example, measured by the election polls) can affect the flow of donations received.

The degree of exit indicates which sectors donate to more candidates, strategically distributing their donations to the highest number of candidates. None of the 18 donor sectors donated to just one candidate. The sectors that divided their contributions among the largest number of applications were Construction (which donated to six candidates) and four sectors that donated to five competitors: Processing industry; Commerce, repairing vehicles and motorcycles; Financial, insurance, and related services; and Professional, scientific and technical activities.

Table 1 – Centrality metrics – Political actors of the President Network

Actor	Entry degree*	Exit degree*	Weighted entry degree	Weighted exit degree	Proximity**	Intermediation
Dilma	18	0	333,707,824.50	0.00	0.86	0.35
Aécio	15	0	213,941,381.58	0.00	0.78	0.22
Eduardo Campos / Marina	15	0	56,399,084.76	0.00	0.78	0.22
Pastor Everaldo	4	0	1,038,385.40	0.00	0.48	0.01
Levy Fidelix	3	0	295,000.00	0.00	0.44	0.003
Eymael	2	0	371,995.35	0.00	0.41	0.001
Luciana Genro	2	0	56,000.00	0.00	0.41	0.002
Zé Maria	2	0	5.608.66	0.00	0.40	0.001

* Since the flow in this network is unidirectional (one actor only donates or receives), we chose to present only the entry degree and exit degree measures, which, in this case, correspond to the degree of each node.

** Harmonized intermediation centrality.

Source: the author, with TSE data.

Table 2 – Centrality metrics – Corporate actors of the President Network

Actor	Entry degree	Exit degree	Weighted entry degree	Weighted exit degree	Proximity**	Intermediation
Construction	0	6	0.00	158,795,678.14	0.61	0.08
Processing Industry	0	5	0.00	251,834,784.97	0.58	0.04
Financial, Insurance, and Related Services	0	5	0.00	87,012,185.23	0.58	0.05
Commerce, Repairing Vehicles and Motorcycles	0	5	0.00	35,682,064.26	0.58	0.06
Professional, Scientific, and Technical Activities	0	5	0.00	7,989,836.98	0.58	0.08
Administrative Activities and Complementary Services	0	4	0.00	18,330,619.74	0.55	0.04
Real Estate Activities	0	4	0.00	2,215,000.00	0.55	0.02
Extractive Industries	0	3	0.00	14,515,000.00	0.53	0.002
Transport, Storage, and Post	0	3	0.00	5,707,930.00	0.53	0.002
Water, Sewage, and Waste Management and Decontamination Activities	0	3	0.00	5,705,009.03	0.53	0.002
Information and Communication	0	3	0.00	2,327,971.90	0.53	0.002
Agriculture, Livestock, Forestry Production, Fishing, and Aquiculture	0	3	0.00	422,000.00	0.53	0.002
Human Health and Social Services	0	2	0.00	5,950,000.00	0.5	0.001
Electricity and Gas	0	2	0.00	5,680,000.00	0.5	0.001
Education	0	2	0.00	2,753,000.00	0.5	0.001

Housing and Food	0	2	0.00	505,000.00	0.5	0.001
Other Activities and Services	0	2	0.00	335,000.00	0.5	0.001
Arts, Culture, Sport, and Recreation	0	2	0.00	54,200.00	0.5	0.001

Source: the author, with data from the TSE.

The flow of money between corporate sectors and candidacies is obtained through the weighted entry and exit degrees, by which each node presents a value according to the sum of the weights of the edges that reach or leave it. In our network, this weight represents the monetary value of the funds traded. Here the order of the main actors is repeated. The three best-placed candidates in the elections are also the most central in weighted entry degree, concentrating 99.8% of the 605.8 million reais contributed by corporations in the presidential campaigns. However, this is an asymmetric concentration: Dilma received 55.1% of this total, while Aécio received 35.3% and Eduardo Campos/Marina Silva, 9.4%. The exit degree was distributed as 82.1% of the donated resources highly concentrated by only three of the 18 economic sectors that financed campaigns: Processing Industry, responsible for 41.6% of the total contributions; Construction, which provided 25.1%; and Financial, Insurance, and Related Services, a source of 14.4%. Previous work conducted by Mancuso, Horochovski, and Camargo (2016) shows that these percentages are much higher than the three sectors' participation in the gross value added (GVA) of the Brazilian economy in 2014: 12%, 6.2%, and 6.4%, respectively. This suggests that the targeted sectors have relevant reasons for financing the presidential election. To understand better the causes of the distinctive donor behavior of the different economic sectors of the complex Brazilian economy is a challenge that makes up the research agenda of our field. We will return to this point in the final considerations.

The graph in Figure 1 illustrates the behavior of the other network statistics generated for this work. The *proximity centrality* represents the average distance between a given node and the other nodes in the network. A higher index indicates a higher degree of closeness of an actor to the others, be it a candidate or a corporate sector. The *intermediation centrality* is the average frequency with which a node is placed in the shortest paths (geodesies) that connect the other nodes in the network. This centrality is treated by literature as a measure of the influence of a social actor. In this case, a higher number indicates a higher frequency. We established that the software worked with standardized measures (between 0 and 1) for both centralities.

In the *president network*, the actors virtually occupy the same positions in both variables, expected in a small network and highly connected (due to the aggregations made). Thus, Dilma, Aécio, and Eduardo/Marina managed to place themselves in privileged positions before the corporate community and vice versa. The corporate sectors, for the most part, approached these

candidates, thus connecting with each other. This configuration allows us to determine the existence of a political-corporate elite that, in the case of electoral competition, is guided by pragmatic strategies that maximize their preferences - ideology and prejudices are in the background, either between candidacies or corporate sectors (MCMENAMIN, 2012).

In the elections for Federal Deputy, we repeated the procedures for the *Federal Deputy network*, of which donor nodes are the same corporate sectors as in the *President network*, and the recipient nodes are now the result of the grouping, by party, of all candidates for this position.

Figure 2 shows the Federal Deputy network graph and the flow of money between corporate sectors and aggregated candidacies per party. The nodes are dimensioned by the amounts donated or received. The thickness of the edges indicates the weight of the relationships between the nodes, given by the volume transacted between each pair of nodes. The nodes' colors represent the types: green are candidates aggregated by parties; red, corporate sectors by CNAE section. We applied the Fruchterman-Reingold distribution/layout.

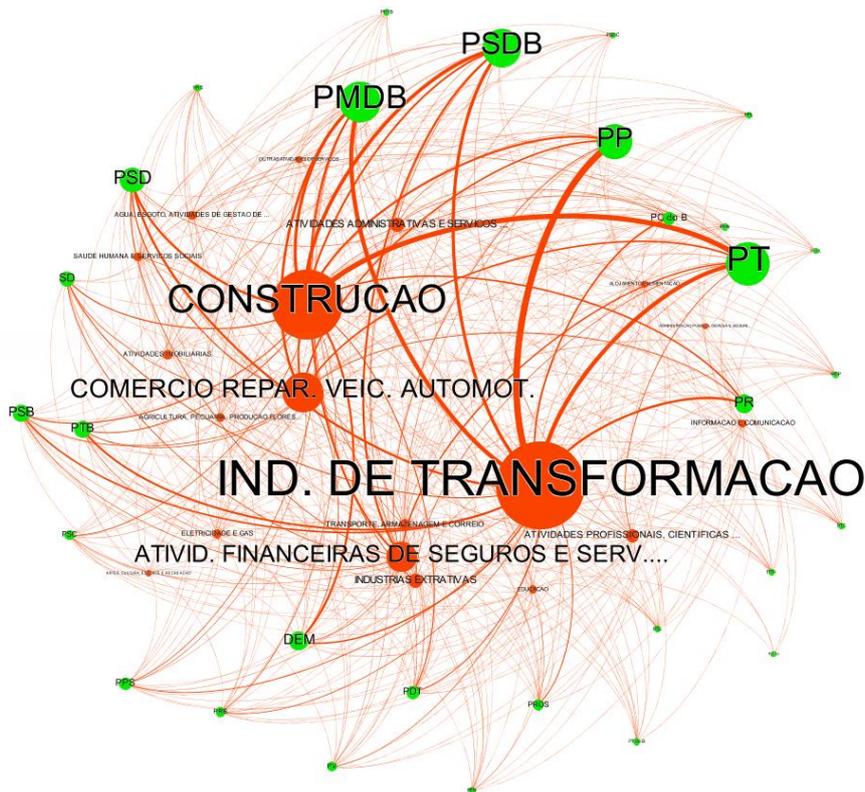


Figure 2 – *Federal Deputy network graph*

Source: the author, with data from the TSE

Tables 3 and 4 show that PT is the only party that has entry level 19. In other words, it received from all sectors that donated to Federal Deputy candidates in that election. Apart from two small left-wing parties, PCO and PCB, which received no donations, and PSTU, which received from five sectors, all associations had candidates who benefitted from at least ten

different corporate sectors. The large and medium parties prevailed in the first positions, with no association of these sizes found in the lower half of the ranking.

Corporate sectors have dispersed their donations. Three sectors - Manufacturing industry; Information and Communication; and Professional, Scientific, and Technical activities - donated to all 30 parties with candidates who received some corporate money in the campaign. It is worth mentioning that the last two sectors congregate corporations such as advertising agencies, legal advisors, and law firms, for example. Virtually all other donor sectors (apart from the Government, Defense, and Social Security) contributed to most or almost all parties that competed for seats in the Chamber with corporate resources. Such a framework makes it necessary to explore the other measures of centrality to identify differences between associations and corporate sectors.

Regarding the weighted entry degree, we will focus the discussion on the three main Brazilian parties: PT, PMDB, and PSDB. Together, these parties collected 41% of the 780 million reais donated by corporations for Federal Deputy campaigns. The concentration, in this case, was much more balanced than that observed in the presidential election. PT obtained 14.7% of revenues, followed by PMDB, with 13.6%, and PSDB, with 12.7%.

Regarding the weighted exit degree, four sections of the CNAE were responsible for 80.4% of all corporate donations, namely: Manufacturing industry, with 32.2% of the total; Construction, 25.1%; Commerce, Repairing Vehicles and Motorcycles, 13.4%; and Financial, Insurance, and Related Services, 9.7%. These same sectors predominated in the presidential election added with the commercial segment. Only the commercial segment presented a proportion of contributions compatible with its participation in the GVA of the Brazilian economy in 2014 (13.6%). In the other three cases, participation in the GVA was systematically lower than the proportion of donations. Understanding the causes of this sectorial political predominance, which does not correspond to what is observed in the economic plan, is a challenge for future research.

Table 3 – Centrality metrics – Political actors of the Federal Deputy Network

Actor	Entry degree*	Exit degree*	Weighted entry degree	Weighted exit degree	Proximity**	Intermediation
PT	19	0	114,303,464,96	0.00	0.70	0.03
DEM	18	0	39,611,415,92	0.00	0.68	0.01
PC do B	18	0	20,840,115,30	0.00	0.68	0.01
PDT	18	0	22,199,319,92	0.00	0.68	0.01
PMDB	18	0	106,405,172,00	0.00	0.68	0.01

PRB	18	0	12,096,709,90	0.00	0.68	0.01
PSB	18	0	34,595,828,18	0.00	0.68	0.01
PSD	18	0	57,372,881,27	0.00	0.68	0.01
PSDB	18	0	99,009,275,85	0.00	0.68	0.01
PTB	18	0	32,735,232,11	0.00	0.68	0.01
SD	18	0	27,772,251,87	0.00	0.68	0.01
PP	17	0	90,011,850,93	0.00	0.67	0.008
PPS	17	0	19,880,641,63	0.00	0.67	0.008
PSC	17	0	12,539,137,99	0.00	0.67	0.008
PV	17	0	10,710,573,65	0.00	0.67	0.008
PR	16	0	38,668,169,91	0.00	0.66	0.006
PROS	16	0	15,042,712,07	0.00	0.66	0.007
PSL	16	0	2,635,000,31	0.00	0.66	0.02
PEN	15	0	3,440,569,41	0.00	0.64	0.005
PHS	15	0	3,097,216,27	0.00	0.64	0.006
PMN	15	0	3,318,594,73	0.00	0.64	0.006
PRP	15	0	1,833,400,70	0.00	0.64	0.006
PTC	14	0	2,148,420,41	0.00	0.63	0.005
PTN	14	0	1,860,454,75	0.00	0.63	0.005
PPL	13	0	1,974,857,27	0.00	0.61	0.005
PT do B	13	0	3,493,568,35	0.00	0.61	0.004
PSDC	12	0	1,045,647,61	0.00	0.60	0.003
PSOL	11	0	88,482,08	0.00	0.59	0.003
PRTB	10	0	1,304,907,48	0.00	0.57	0.002
PSTU	5	0	2,420,00	0.00	0.50	0.000

* Since the flow in this network is unidirectional (one actor only donates or receives), we chose to present only the entry degree and exit degree measures, which, in this case, correspond to the degree of each node.

** Harmonized intermediation centrality.

Source: the author, with data from the TSE.

Table 4 – Centrality metrics – Corporative actors of the Federal Deputy Network

Actor	Entry degree	Exit degree	Weighted entry degree	Weighted exit degree	Proximity**	Intermediation
Processing Industry	0	30	0.00	251,005,680.45	0.81	0.04
Information and Communication	0	30	0.00	6,686,382.31	0.81	0.04
Professional, Scientific, and Technic Activities	0	30	0.00	20,850,315.51	0.81	0.04
Construction	0	29	0.00	195,766,093.67	0.80	0.03
Commerce, Repairing Vehicles and Motorcycles	0	29	0.00	104,153,482.16	0.80	0.03
Housing and Food	0	29	0.00	3,741,118.37	0.80	0.04
Administrative Activities and Complementary Services	0	29	0.00	24,663,653.34	0.80	0.03
Financial, insurance, and related services	0	28	0.00	75,375,263.98	0.78	0.03
Transport, Storage, and Post	0	27	0.00	15,264,503.16	0.77	0.03
Extractive Industries	0	26	0.00	24,935,359.76	0.76	0.02
Agriculture, Livestock, Forestry Production, Fishing, and Aquiculture	0	25	0.00	8,939,646.35	0.74	0.02
Education	0	25	0.00	6,507,965.76	0.74	0.037
Electricity and Gas	0	24	0.00	8,298,629.85	0.73	0.02
Real Estate Activities	0	24	0.00	11,495,958.63	0.73	0.02
Human Health and Social Services	0	23	0.00	8,448,067.30	0.73	0.02
Water, Sewage, and Waste Management and Decontamination Activities	0	19	0.00	9,732,359.34	0.66	0.01
Arts, Culture, Sport, and Recreation	0	19	0.00	679,778.72	0.66	0.01
Other Activities and Services	0	19	0.00	3,484,094.17	0.66	0.01
Government, Defense, and Social Security	0	2	0.00	9,940.00	0.42	0.000

Source: the author, with data from the TSE.

There are also some differences regarding the president network in the other metrics analyzed. While in the *President network*, the candidates and sectors alternated in the first positions in the ranking of proximity centrality, in the *Federal Deputy network*, the economic sectors occupy the first 15 positions - only then does the first party appear PT, which, at the time, held the presidency. This is probably due to the characteristics of each of these disputes. There is less fragmentation of competitive candidates in a two-round majority election, such as the presidential. In this context, candidacies are central to the corporate sectors. In the proportional elections, there is a greater dispersion of money among the candidacies, which reflects the great fragmentation of the Brazilian party system and, at the same time, fuels this fragmentation in the Chamber of Deputies, which in 2014 reached the largest effective number of political parties in the country's history (13.2). Furthermore, we can also suggest that corporations from different sectors prefer to influence the public agenda in the legislature, where costs can be lower, and investment is more efficient in a shorter period. Evidence of this dynamic can be found in Geara *et al.* (2018), a work that explores the relationships between the campaign financing networks of Federal Deputies and the composition of the Chamber of Deputies' permanent commissions. Another noteworthy fact is that, despite being the third CNAE section that most contributes to campaign resources, the financial sector has only the ninth position in the proximity centrality. This suggests that this specific sector comprises a smaller number of large corporations, bets almost entirely on candidates from larger and more competitive parties, and does so more intensely than other sectors.

Multiple Linear Regression

Finally, it is worth asking: which party characteristics are associated with the amount of electoral funding they received from the CNAE sections that donated the most in the election for Federal Deputy in 2014? To answer this question, we developed multiple linear regression models with dummy independent variables. The result analysis is based on Gujarati (2004).

Three explanatory variables were included in our models. The first is the size of the political party, measured according to the size of its seats in the Chamber of Deputies on the first round of the 2014 election. We will test the hypothesis (H1) that there is a positive and significant association between the size of the political union and the volume of electoral funding offered to it by the CNAE sections under analysis. The underlying idea is that donor corporations are rational actors seeking to maximize their political investments' efficiency. They consider the past success of a party as a good indicator of the expectation of future success. In other words, investment in larger parties would minimize the prospect of wasting their political resources (MANCUSO, HOROCHOVSKI, and CAMARGO, 2018). Through cluster analysis, the political parties that presented candidates to the Chamber of Deputies in the 2014 election were divided into three groups: large, intermediate, and small. Small political parties were considered as a reference

group in our models⁹.

The second variable is the political party's ideology, measured from surveys conducted by Cesar Zucco Jr. with Brazilian congressional representatives¹⁰. The hypothesis tested here (H2) is that left-wing parties receive significantly fewer resources from the CNAE sections vis-à-vis the center and right-wing parties. This hypothesis is justified because self-identified parties on the left-wing tend to be more critical of the corporate class's interests than parties of other ideological tendencies. Because of this stance of the left-wing parties, the entrepreneurs of the different CNAE sections would prefer to finance parties with other ideals, located more at the center and to the right-wing of the ideological spectrum. The idea that party ideology can affect campaign donor behavior has been widely explored in the national and international literature on political financing (SAMUELS, 2001a; LEMOS, MARCELINO, and PEDERIVA, 2010; MCMENAMIN 2008; 2012; MANCUSO *et al.* 2016).

Finally, the third variable is membership of the Dilma Rousseff government support base in the National Congress on the first round of the 2014 election. This variable was measured based on the Legislative Database of the Brazilian Center for Analysis and Planning (CEBRAP). It considers that a party belongs to the government base if it holds a ministerial cabinet position¹¹. The tested hypothesis (H3) is that parties belonging to the government base receive significantly more resources from the CNAE sections than parties that do not. The assumption underlying this hypothesis is that funders would have reason to invest proportionally more in base parties, either to reward them for beneficial decisions taken during the presidential term or to believe that such parties would have a greater expectation of victory (especially when the government is well evaluated). The literature has constantly gauged this variable's effect on political financing (SAMUELS 2001a; LEMOS, MARCELINO, and PEDERIVA 2010; MANCUSO *et al.* 2016).

⁹ The agglomeration method used was K means clustering, with K=3. PMDB and PT are the large parties. The intermediate parties are DEM, PP, PR, PSD, and PSDB. All other parties are small: PC do B, PCB, PCO, PDT, PEN, PHS, PMN, PPL, PPS, PRB, PROS, PRP, PRTB, PSB, PSC, PSDC, PSL, PSOL, PSTU, PT do B, PTB, PTC, PTN, PV, and SD.

¹⁰ Based on the score attributed to the political parties, we used the conglomerate analysis to identify the left, center, and right wing parties. The classification was possible for 20 parties. The score included in our calculation was always that available for the year nearest 2014. Once more, the agglomeration method applied was the K means clustering, with K=3. The parties classified as left wing were PC do B, PSB, PSOL, PT, and PSTU. The center wing parties were PDT, PPS, PROS, PV, and SD. The right wing parties were DEM, PMDB, PP, PR, PRB, PSC, PSD, PSDB, PTB, and PTN.

¹¹ Seven parties belonged to the base of the government at the time: PC do B, PDT, PMDB, PP, PR, PRB, and PT.

The results are shown in Table 5.

Table 5 – Multiple Linear Regression

Independent Variables	Dependent Variable (in BRL)			
	Industry	Construction	Commerce	Finances
Center	403,495.25 (5,326,264.56)	259,594.29 (2,932,830.11)	1,821,124.75 (1,686,234.71)	1,203,697.63 (1,845,073.74)
Right	-222,993.10 (5,162,898.87)	-2,108,737.28 (2,842,875.17)	1,490,861.50 (1,634,514.99)	547,040.72 (1,788,482.15)
Large	19,022,885.65* (7,235,956.50)	26,647,182.39*** (3,984,374.20)	13,005,800.54*** (2,290,821.43)	11,749,122.00*** (2,506,610.99)
Intermediate	15,813,705.15* (5,361,892.15)	14,131,468.86*** (2,952,447.92)	6,168,183.16** (1,697,514.00)	4,766,504.01* (1,857,415.50)
Base	7,033,716.43 (4,363,445.94)	-1,151,269.09 (2,402,668.05)	-292,584.53 (1,381,417.30)	-2,145,832.05 (1,511,543.30)
Constant	3,879,343.85 (4,022,898.39)	4,672,270.05 (2,215,150.49)	1,042,960.10 (1,273,603.82)	1,495,511.73 (1,393,574.06)

Source: TSE data organized by the authors.

Standard error between parentheses.

* $0.01 > p \leq 0.05$; ** $0.001 > p \leq 0.01$; *** $p \leq 0.001$

Industry: N = 20; $R^2 = 0.667$; R^2 adjusted = 0.548

Construction: N = 20; $R^2 = 0.835$; R^2 adjusted = 0.776

Commerce: N = 20; $R^2 = 0.794$; R^2 adjusted = 0.721

Finances: N = 20; $R^2 = 0.662$; R^2 adjusted = 0.541

The four models show that the size of the party is a variable strongly associated with the volume of resources granted by the CNAE sections that donated the most. Compared to small parties, large parties received, on average, approximately 19 million reais more from the manufacturing industry, 26.6 million more from the construction sector, 13 million more from the commercial segment, and 11.7 million more from the financial area. The average difference is smaller for intermediate parties but still statistically significant.

Party ideology was not associated with sector electoral financing in any case. In two sectors, the difference observed followed the direction predicted by the hypothesis: on average, both the center and right-wing parties were better financed by Commerce and Finance than the left-wing parties. In two other sectors – processing industry and Construction - the center wing parties were more favored with electoral resources than the left-wing parties. However, the

opposite was observed with the parties on the right-wing. The main corporate segments that fund campaigns seem to be more pragmatic than ideological - they finance parties of which electoral viability is more proven, without giving too much weight to the ideological line they profess.

Finally, membership in the base was also not associated with receiving more sectoral electoral funding. Furthermore, in three cases - Construction, Commerce, and Finance - the variable's sign contradicted the article's hypothesis: on average, the base parties received less from these sectors than the parties that did not have ministerial portfolios. Although not statistically significant, the biggest difference was on account of the financial sector, which, on average, provided approximately 2.1 million reais more to parties that were not part of the government. Here, the Processing Industry made the exception, the only corporate sector that financed the governing parties more. A proposed explanation for this is that, according to several authors (BASTOS, 2017; BOITO, 2018; CARVALHO, 2018; SINGER, 2018), the policies of Dilma Rousseff's first government sought to satisfy the agenda of the industrial sector (referred to as "FIESP agenda"), through means such as lowering interest rates, subsidizing credit via the BNDES, tax benefits, containing the cost of electricity, etc. The most abundant industrial financing for government parties in 2014 - offered, above all, by corporations such as JBS - can be interpreted as a form of retribution for the economic program adopted between 2011 and 2014. This attempt at a precise explanation must be deepened in future work.

5. Final considerations

Considering the sectoral electoral financing from the perspective of the supply, this study showed that:

1. The vast majority of sectors financed elections to the Presidency of the Republic and the Chamber of Deputies in 2014. Of the 21 sections of the CNAE, 18 (85.7%) donated to Presidential candidates and 19 (90.5%) to Federal Deputy candidates.

2. No donor sector, in any of the elections studied, concentrated its contributions on just one candidacy or party. For example, in the Presidency election, the construction sector divided its funding among six of the 11 candidates (54.5% of the total). In the election to the Chamber of Deputies, almost all sectors donated to most parties, and three sectors donated to all parties (Processing, Information, and Communication Industry, and Professional, Scientific, and Technical Activities).

3. However, the corporate sectors responsible for most donations were few and virtually the same. Furthermore, the relative participation of these sectors in the donor effort generally exceeded their participation in the GVA of the Brazilian economy in 2014. The predominant sections in the Presidential election were the Processing Industry (41.6% of total donations and 12% of GVA), the Construction Industry (26.2% of donations and 6.2% of GVA), and the Financial Segment (14.4% of donations and 6.4% of GVA). The predominant sections in the

parliamentary election were almost the same (Processing Industry, 32.2%; Construction, 25.1%; and Finance, 9.7%), in addition to commerce (13.4% of donations and 13.6% of GVA). The reasons for the predominance of these sectors can be at the corporate level, such as contracts with the Federal Government, or at the sectoral level, such as the degree of intervention and influence of the Federal Executive on the economic sector or the structure of the sector in terms of the number of corporations and their size and the share of economic activity they concentrate. Understanding these reasons better is an important challenge for our future research agenda.

Regarding the phenomenon from the perspective of the demand, we concluded that:

1. The reception of corporate resources was well disseminated since eight out of 11 Presidential candidacies received money from corporations in 2014 (72.7% of the total), while 30 of the 32 parties that competed for seats in the Chamber of Deputies also received funds from this source (93.8%).

2. However, the distribution of resources between candidacies and parties was quite unbalanced. The Presidential election's main candidates received donations from more corporate sectors - of the 21 sectors, 18 donated to Dilma Rousseff (85.7% of the total) and 15 donated to Aécio Neves and Eduardo Campos/Marina Silva (71.4% of the total). The other candidacies received only from four sectors or less. Regarding the volume of donations received, the main candidacies collected no less than 99.8% of the total donated. However, the distribution was unbalanced even among them, with Dilma receiving just over half of those amounts, Aécio just over a third, and Eduardo Campos/Marina Silva about a tenth of the total.

There was also a certain imbalance between the parties contemplated for the election to the Chamber of Deputies. The main Brazilian parties at the time were PT, PMDB, and PSDB. PT received donations from all 19 sectors that financed that election, covering 14.7% of the total donations. PMDB and PSDB received donations from 18 sectors and collected 13.6% and 12.7% of the total, respectively. Of every BRL 100.00 donated by corporations for the Federal Deputy election, these three parties were received BRL 41.00. The remaining BRL 59.00 were divided among the other 27 parties that also received electoral funding.

The analysis of social network statistics for political funding in 2014 (proximity and intermediation centrality) indicated that:

1. The three main candidates and three main donor sectors in the Presidential election stood out in the center of the network, thus forming a type of highly interconnected political and economic elite.

2. The centrality belonged to the Federal Deputy election's main donor sectors due to the higher dispersion of resources among the parties, vis-à-vis what was observed in the Presidential dispute. The three main parties mentioned above (PT, PMDB, and PSDB) are in a prominent position at the top of the network.

Finally, the multiple linear regression focused on factors that could explain the level of

financing allocated by the four main corporate sectors that donated to Brazilian political parties in the election for Federal Deputy. This part of the work concluded that the factor with the highest explanatory potential for the observed phenomenon is the size of the parties. Compared to small parties, medium and, above all, large parties are given significantly more electoral resources from the targeted sectors. Ideology and membership of the base were not shown to be factors with statistically significant effects.

This paper's main conclusion is that the behavior of the corporate sectors that financed the Presidential and Federal Deputy campaigns in Brazil in 2014 was pragmatic. No important sector seemed to be bound by ideology when donating for candidacies or parties. However, the specific nature of sectoral pragmatism was affected by the electoral rules of the dispute for each office. In the case of the Presidential election, which is a majority election in two rounds, pragmatism meant "sharing resources among the candidates who are in the lead", and was expressed through the division of donations between the main opposition candidates, especially those who managed to run the second electoral round, regardless of the ideological profile, even if the division of contributions between them was not exactly equal. Regarding the election for Federal Deputy, which is a proportional election, pragmatism meant "sharing resources among the larger parties", even though they might have different ideological profiles, or even if some belong to the government base, while the others belong to the opposition.

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